Project Name: **ASEP – Arm Supports for Ergonomic Positioning**

Customer: **EH&S and EETD**

Date: **from 8/15/02 to 11/01/02**

Project team members:

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The Project

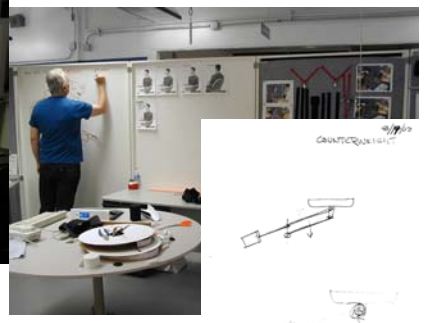
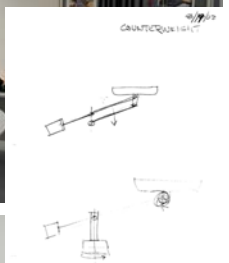
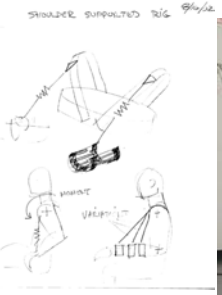
Design and develop a cost-effective and practical ergonomic support device that assists the user in maintaining a neutral body position. The device should minimize upper extremity ergonomic injuries arising from awkward postures and static muscle loads on the arms.

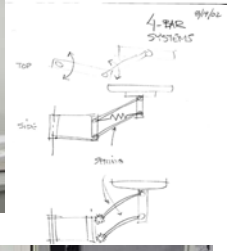
The Challenge

With a very small budget and general, non-specific requirements – design and prototype a system that provides ergonomic support to the arms during typing on a computer. The device must assist the user in maintaining a "neutral" body position. The unit must work with people of different sizes and shapes, and be easy to use and adjust.

The solution

Due to the small budget and short time frame, an approach that would result in a wide range of ideas and concepts was utilized. The project started with a "brainstorm" session that generated ideas ranging from simple body-worn devices to fully articulated external support systems. A workspace was set up to quickly mock-up and subjectively test as many concept devices as possible. Three devices were developed: a body worn "shawl", an external articulated counterweight system, and a 4-bar linkage support device. The results of the effort was presented to LBNL senior management. A plan to acquire funding to test and develop the concepts for possible industry CRADA was also presented.





S.Dellinges
7/15/02

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